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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,412	07/23/2004	Takashi Yasukochi	KUZ-0018	3951

7590 05/18/2005

Jane Massey Licata  
Licata & Tyrrell  
66 East Main Street  
Marlton, NJ 08053

EXAMINER
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HUANG, MEI QI

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/502,412

Applicant(s)

YASUKOCHI ET AL.

Examiner

Mei Q. Huang

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/23/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsberg (U.S. Patent No. 3,879,325) in view of Kitazawa et al. (U.S. Patent No. 5,164,492).

The prior art to Forsberg relate to adhesives prepared from polymerizing unsaturated alcohols and esters, such as vinyl, methylvinyl, 1-phnalkyl, butenyl alcohols (column 9, line 1-3); unsaturated acid compounds, such as acrylic, methacrylic, ethylacrylic acids (column 9, line 6-7); and vinyl cyclic compounds, such as N-vinylpyrrolidone (column 9, line 34), in an organic liquid which is a solvent for the reactants or the product or both. Suitable organic diluents include alcohols, especially lower alkanols such as methanol, ethanol, n-butanol and the like. The lower alkanols

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are particularly preferred by reason of the fact that they serve as solvents for both the reactants (polymerizable compounds, crosslinking agent(s), etc.) and the products (column 3, line 34-49). Curing is frequently enhanced by the addition of an aminoplast composition as a crosslinking agent (column 17, line 42-44). Examples of the aminoplast composition include urea formaldehydes (column 17, line 49-50). The applicability of the invented polymers including being used as laminating adhesives and binders for textiles and nonwoven fabrics is expressly disclosed at column 22, line 35-37. The notion of applying the adhesive onto a strip of cotton cloth and thermal treatment after lamination are taught at column 23, line 54-64. It is noted that the polymer can be cured at temperatures above the water boiling temperature (see column 22, line 31-37 and column 23, line 54-64), therefore the final adhesive product would be water-free.

The only difference between the prior art and the present application is that Forsberg uses the aminoplast composition including urea formaldehydes as a crosslinking agent. The prior art to Kitazawa et al. discloses polymers containing the glycoside derivatives with an acrylate or methacrylate (Abstract and column 4, line 20-24). Kitazawa et al. further teach that the hydroxyl groups of the polymers can be crosslinked with a crosslinking agent, such as urea-formaldehyde adduct and boron trifluoride (column 10, line 47-62). Kitazawa et al. herein teach the interchangeability of urea-formaldehyde compound and boron trifluoride as functionally equivalent crosslinking agents for crosslinking hydroxyl function groups. Thus, it would have been obvious to one of ordinary skill in the art to replace urea-formaldehyde compound, as

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taught by Kitazawa et al., with boron trifluoride, in Forsberg's process which uses the similar polymer, based on their recognized interchangeability as functionally equivalent crosslinking agent, motivated by a reasonable expectation of success. *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mei Q. Huang whose telephone number is (571) 272-3549. The examiner can normally be reached on 8am - 4pm, Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mei Q. Huang  
Examiner

May 12, 2005

**TATYANA ZALUKAEVA**  
**PRIMARY EXAMINER**

